

Application No.: 10/821,805

3

Docket No.: 58418CIP(48497)

**Listing of the Claims:**

This listing of claims will replace all prior listings:

1. (Currently Amended) A PNA probe comprising a nucleobase sequence suitable for the detection, identification and/or quantitation of *Pseudomonas* (*sensu stricto*), said PNA probe being complementary to a target sequence of 23S rRNA or rDNA of all species of the genus *Pseudomonas*, except for *Pseudomonas pertucinogena*, or its complement sequences complementary to the target sequence of 23S rRNA or rDNA.
2. (Currently Amended) The PNA probe of claim 1, wherein at least a portion of the probe is at least about 90% identical to the nucleobase sequence or complement thereof selected from the following sequence: CCT ACC ACC TTA AAC (Seq. Id. No. 1).
3. (Currently Amended) The PNA probe of claim 1, wherein the PNA probe comprises a sequence of 8 9-17 nucleobase subunits in length.
4. (Previously Presented) The PNA probe of claim 1 for the detection, identification and/or quantification of *Pseudomonas* (*sensu stricto*) comprising the following probe sequence: CCT ACC ACC TTA AAC (Seq. Id. No. 1), the complement and/or variations thereof.
5. (Original) The PNA probe of claim 1, wherein the probe is labeled with at least one detectable moiety.
6. (Original) The PNA probe of claim 5, wherein the detectable moiety or moieties are selected from the group consisting of: a conjugate, a branched detection system, a chromophore, a fluorophore, a spin label, a radioisotope, an enzyme, a hapten, an acridinium ester and a luminescent compound.

Application No.: 10/821,805

4

Docket No.: 58418CIP(48497)

7. (Original) The PNA probe of claim 5, wherein the probe is self-reporting.

8. (Currently Amended) The PNA probe of claims 7, wherein the probe comprises a PNA Linear Beacon.

9. (Original) The PNA probe of claim 1, wherein the probe is unlabeled.

10. (Original) The PNA probe of claim 1, wherein the probe is bound to a support.

11. (Currently Amended) The PNA probe of claims 1, wherein the probe further comprises a spacer or a linker.

12. (Currently Amended) The PNA probe of claims 1, wherein in situ hybridization is used for analysis of *Pseudomonas (sensu stricto)* ~~optionally present in the sample~~.

13. -24 (Canceled)

25. (Original) A kit adapted to perform an assay for the detection, identification and/or quantitation of *Pseudomonas (sensu stricto)* in a sample, wherein said kit comprises: a) a PNA probe according to claim 1 and b) other reagents or compositions necessary to perform the assay.

26. (Original) The kit of claim 25, wherein *Pseudomonas (sensu stricto)* and at least one other microorganism optionally present in a sample are independently detected, identified and/or quantitated.

Application No.: 10/821,805

5

Docket No.: 58418CIP(48497)

27. (Original) The kit of claim 25, wherein *Pseudomonas (sensu stricto)* optionally present in a sample is detected, identified and/or quantitated and its susceptibility to antimicrobial agents is determined.

28. (Currently Amended) The kit of claim 25, wherein the kit is used further adapted to perform an in-situ hybridization assay.

29..(Currently Amended) The kit of claim 25, wherein the kit is used further adapted to perform a real-time PCR assay.

30. (Currently Amended) The kit of claim 25, wherein the kit is used adapted to examine clinical samples such as clinical specimens or cultures thereof.

31. (Currently Amended) The kit of claim 25, wherein the kit is used adapted to examine food, beverages, water, pharmaceutical products, personal care products, dairy products or environmental samples or cultures thereof.

32. (New) A PNA probe comprising a nucleobase sequence for the detection, identification and/or quantitation of *Pseudomonas (sensu stricto)*, said PNA probe being complementary to a target sequence of 23S rRNA or rDNA of the species of the genus *Pseudomonas* selected from the group consisting of: *Pseudomonas aeruginosa*, *Pseudomonas alcaligenes*, *Pseudomonas chlororaphis*, *Pseudomonas fluorescens*, *Pseudomonas fragi*, *Pseudomonas huttiensis*, *Pseudomonas luteola*, *Pseudomonas mendocina*, *Pseudomonas mucidolens*, *Pseudomonas nitroreducens*, *Pseudomonas pseudoalcaligenes*, *Pseudomonas putida*, *Pseudomonas stutzeri*, and *Pseudomonas veronii*, or sequences complementary to the target sequence.

33. (New) A PNA probe comprising SEQ ID NO: 1 for the detection, identification and/or quantitation of *Pseudomonas (sensu stricto)*, said PNA probe being complementary

Application No.: 10/821,805

6

Docket No.: 58418CIP(48497)

to a target sequence of 23S rRNA or rDNA of the species of the genus *Pseudomonas* selected from the group consisting of: *Pseudomonas aeruginosa*, *Pseudomonas alcaligenes*, *Pseudomonas chlororaphis*, *Pseudomonas fluorescens*, *Pseudomonas fragi*, *Pseudomonas huttiensis*, *Pseudomonas luteola*, *Pseudomonas mendocina*, *Pseudomonas mucidolens*, *Pseudomonas nitroreducens*, *Pseudomonas pseudoalcaligenes*, *Pseudomonas putida*, *Pseudomonas stutzeri*, and *Pseudomonas veronii*, or sequences complementary to the target sequence.